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09/216,985	12/21/1998	LAURENCE HONARVAR	1330.1010	8897

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EXAMINER

SHEIKH, ASFAND M

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3627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/216,985	Applicant(s) HONARVAR, LAURENCE	
	Examiner Asfand M. Sheikh	Art Unit 3627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11,22-37 and 48-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11,22-37 and 48-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Claim 1	<i>Claim Map from 09/216,985</i>
loading all customer and account data required for evaluating the customer and each of the accounts;	The examiner has re-arranged the limitations of claim 1 to group some similar limitations in the same claim.
the loaded customer and account data being loaded at a time prior to initiating said evaluating and being sufficient to evaluate the customer and each of the accounts by said evaluating without loading additional customer or account data,	Applicant's definition of a "single pass" is "A 'single pass' indicates that, in the evaluation of a customer, the required customer and account data is retrieved and loaded once, prior to doing the customer evaluation." See page 10 of applicant's paper 9, dated 9/18/02.
the customer and each of the accounts thereby being evaluated in a single pass via the iterative function;	This limitation is shown by Hoover, (Column 6, lines 1-15). "Preferably, the data items associated with the subject [claimed customer information would be the subject] are stored in a separate, homogenized object-based remote database physically located at the

	<p>customer's site [all data loaded prior to use, this "customer" would be the Walker system]".</p> <p>From Hoover, Column 6, lines 57-62.</p> <p>Accordingly, it is an objective of the present invention to provide a distributed database computer system that overlays a homogeneous data model upon a plurality of possibly remotely located and possibly heterogeneous database systems or structures, so as to facilitate the retrieval and synchronization of information in a global fashion. In order for "synchronization" or for use at the same time of the information, all the information had to be loaded prior to the initiation of processing. This is also an explicit motivation for combining information in this manner from many heterogeneous databases such as Walker does.</p>
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<p>evaluating the customer and each of the accounts via an iterative function which uses the loaded customer and account data,</p> <p>"iterative function" to be discussed on next page.</p>	<p>From Walker, column 6, lines 4-7.</p> <p>The system has a front-end processing system (blocks 14 and 16) that provides an immediate review of the results of analyzing an applicant's credit bureau history (blocks 28, 30, 32 and 34) (account data, 30, 32, 34 provide virtual attributes) and automated credit scoring.</p> <p>From Walker, column 6, lines 10-15. "This feature enables the ability to provide new or existing customers (block 10) with an up-front conditional approval (based on systematic evaluation of credit bureau history, credit score, debt burden, credit policies and the customer's relationship with the financial institution), subject to required verifications.</p>
<p>wherein said evaluating determines which strategy of a plurality of strategies will be used to evaluate each account via the</p>	<p>From Walker, column 7, lines 58-66. "The Maximum Debt Burden Offer provides applicants requesting credit (revolving or</p>

<p>iterative function based on a type of the account, and</p> <p>evaluates each account for a same product or service via the iterative function with the same strategy and evaluates accounts for different products or services via the iterative function with different strategies,</p> <p>to thereby produce a respective decision for each of the accounts,</p>	<p>closed-end) with the maximum allowable line of credit or loan amount, whose estimated payment for the requested product, in addition to all known debt payments (applicant provided debt, including rent or mortgage payments, and credit bureau derived payments), would not exceed the product specified parameters (line assignment tables) up to the designated controlling debt burden table parameter such as 45%."</p> <p>The examiner calls attention to page 11 of Applicant's "Argument" section, paragraph 3.</p> <p>"More specifically, as recited, for example, in claim 1, and as shown in FIG. 10, an iterative function (see "next iteration" in FIG. 10) is used to evaluate the customer and each of the accounts. In steps 222 and 224, the type of account is taken into consideration. For example, it is determined what kind of product or service</p>
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	<p>the account is for. In FIG. 10, different strategies are used to evaluate credit card accounts and mortgage accounts, respectively. Via the iterative function in FIG. 10, the process loops back so that each account of the customer is evaluated, with accounts for different products or services being evaluated with different strategies.</p>
<p>(Examiner interpretation notes)</p> <p>Both the invention of the Applicant and the prior art recognized the difference between a mortgage account and a credit card account. That is the claimed "evaluating".</p> <p>The claimed "strategies" are the difference processes of extracting data from different structured accounts.</p> <p>The "iterative function" is merely the repetitive process of extracting data (monthly debt payments in the Walker system) from each account.</p> <p>The "respective decision" is redundant</p>	

because the "decision" is the chosen strategy in the "wherein said evaluating determines which strategy" step	
taking an action in accordance with a result of said evaluating.	an up-front conditional approval

The examiner has provided a claim map for claim 1 to facilitate review of the claimed elements.

Applicant asserts that Walker shows the processing of only a single application. This is not relevant because the claim language does not recite anything about an "application".

Applicant asserts that Walker does not use an iterative function. The examiner does not concur. The "iterative function" is merely the repetitive process of extracting data (monthly debt payments in the Walker system) from each account. (See claim map and rejection for more details).

Applicant discusses how a loop in Walker would work. As shown in the rejection and in the claim map, Hoover teaches loading all the data about a subject (customer) into a local homogeneous database. Walker repetitively or iteratively processes each account just like Applicant does.

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Applicant cites,

“More specifically, as recited, for example, in claim 1, and as shown in FIG. 10, an iterative function (see "next iteration" in FIG. 10) is used to evaluate the customer and each of the accounts. In steps 222 and 224, the type of account is taken into consideration. For example, it is determined what kind of product or service the account is for. In FIG. 10, different strategies are used to evaluate credit card accounts and mortgage accounts, respectively. Via the iterative function in FIG. 10, the process loops back so that each account of the customer is evaluated, with accounts for different products or services being evaluated with different strategies.” Examiner has added the underlining for emphasis.

Applicant then asserts that Walker does not disclose or suggest such features.

The examiner does not concur. Walker’s disclosure is very similar and certainly meets the broadly recited claim language.

From Walker, column 7, lines 58-66.

“The Maximum Debt Burden Offer provides applicants requesting credit (revolving or closed-end) with the maximum allowable line of credit or loan amount, whose estimated payment for the requested product, in addition to all known debt payments (applicant provided debt, including rent or mortgage payments, and credit bureau derived payments), would not exceed the product specified parameters (line assignment tables) up to the designated controlling debt burden table parameter such as 45%.” Examiner has added the underlining for emphasis.

Applicant asserts that Walker does not disclose a “single pass”. The examiner does not concur. There is a lot of prosecution history concerning this phrase.

Applicant’s definition of a “single pass” is “A ‘single pass’ indicates that, in the evaluation of a customer, the required customer and account data is retrieved and loaded once, prior to doing the customer evaluation.” The Hoover reference meets this limitation.

Applicant asserts that steps 2092 and 2094 require the retrieval of more data. The examiner does not concur. First, looking at figure 42, the whole process of figure 43 can be bypassed at step 2084, which allows Walker to meet the metes and bounds of the claim limitations. Second, a scoring decision could have been already accomplished by that stage in the process and therefore also meet the claim language as broadly recited.

Applicant asserts that Walker does not suggest that a decision is produced for each account of the customer. The examiner does not concur. The “respective decision” is the “decision” is the chosen strategy in the “wherein said evaluating determines which strategy” step. The claimed “strategies” are the difference processes of extracting data from different structured accounts. Walker shows this “decision” by applying different processes to extract the desired information from different types of accounts.

Applicant asserts that Walker does not use an iterative function. The examiner does not concur. Walker Maximum Debt Burden Offer system repetitively or iteratively goes through a process or function for each account of the customer. For each account, a process is chosen or decided upon to extract the customer’s monthly debt payment for that account. This meets the metes and bounds of the claim limitations.

Applicant asserts that the use of tables is significantly different than the use of an iterative function of the claimed invention. This is not relevant because there are no claim limitations to distinguish the “significant differences”.

Applicant asserts that Walker does not use an “iterative matrix” or a calling of another iterative function. The examiner does not concur. Walker discloses a series of tables or matrices (ACAPS 26) containing price points (column 9, line 66), which work in conjunction with the Maximum Debt Burden Offer system (see top of column 8, including the table). This relation meets both the “iterative matrix” and calling of another iterative function requirements.

Applicant has not argued any aspects (i.e. motivation to combine) of the 103 rejection not being proper. The examiner is assuming that Applicant concurs with the examiner in that the combination is proper.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 22-37 and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. (6,088,686) in view of Hoover et al (5,556,005).

Walker et al. shows all of the limitations of the claims except for specifying that the customer and account data are loaded prior to the evaluating.

Walker et al. Shows, figures 1A and 1B, the system and method of the present invention provide on-line processing of applications in real time (single pass, one time

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data input, means for evaluating), thus providing conditional approvals, pending required verifications. The system has a front-end processing system (blocks 14 and 16) that provides an immediate review of the results of analyzing an applicant's credit bureau history (blocks 28, 30, 32 and 34) (account data, 30, 32, 34 provide virtual attributes) and automated credit scoring. The system and method of the present invention involves the unique processing of a new or existing customer relationship (blocks 18, 20 and 24, virtual attributes) (customer data) into the credit decision request. Via on-line real-time integration of the many systems (block 52) involved in the process, all of the existing customer's accounts (each of customer's accounts, some can be of the same type) are systematically and automatically reviewed (all customer and account data loaded without additional data) during the application session to determine the aggregate balance amount, which gives rise to the best price being offered to the existing customer 10 (evaluating customer) for the requested credit product. This feature enables the ability to provide new or existing customers (block 10) with an up-front conditional approval based on systematic evaluation of credit bureau history, credit score (virtual attribute), debt burden (virtual attribute), credit policies and the customer's relationship (virtual attribute) with the financial institution, (separate extracts, different data sources, plurality of extracts) subject to required verifications.

The Maximum Debt Burden Offer provides applicants requesting credit (revolving or closed-end) with the maximum allowable line of credit or loan amount, whose estimated payment for the requested product, in addition to all known debt payments (applicant provided debt, including rent or mortgage payments, and credit bureau

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derived payments) (different accounts with different strategies, inherent in this step is determining the “strategy” of how each different account relates to the Maximum Debt Burden. This determining is also a decision tree node.), would not exceed the product specified parameters (line assignment tables) up to the designated controlling debt burden table parameter.

Any label for a term is a virtual attribute. For example, credit limit less the balance is equal to the available credit. In this example, the terms “credit limit”, “balance” and “available credit” are all virtual terms because they are all attributes with no explicit data value. (See applicant’s definition on page 18, lines 11-13 of the specification.) These attributes do represent a series of non-virtual attributes, which have explicit values. The examiner has indicated many “virtual attributes” through out the sighted reference. The “non-virtual attributes” are inherent as the collection of attributes, which make up a “virtual attribute”.

A series of tables in the application processing system (ACAPS 26) contains the price points for each product that has multiple price points (iterative function, iterative matrix). The tables also provide the name of the characteristic (such as balance amount, virtual attribute), the break point(s)(virtual attribute) (such as less than \$1500, greater than or equal to \$1500, etc.), and the resulting price(s)(virtual attribute). Other table values within ACAPS 26 determine whether the automated pricing routines should be used or not used (first iterative decision tree, iterative for each new account requested by customer). Assuming the routines are used, ACAPS 26 calls (first iterative function calls second) upon another bank system (block 52), which aggregates

all of the customer's balances (second iterative matrix function, iterating through a number of accounts) to obtain the aggregated balance amount to be used in conjunction with the pricing tables to determine the price to be offered to the applicant 10.

Hoover et al., figure 16, shows a method and system for object-based relational distributed databases. Each of the remotely located user computers comprises a heterogeneous data structure, and data is "homogenized" by mapping predetermined data fields items stored in the heterogeneous user computers to corresponding object attributes associated with a predetermined instance of an object, where the object is determined by an object model that relates to all of the heterogeneous user computers connected to the system. The object attributes are stored in an object attribute table in the remote user computers in association with object identifiers. Preferably, the data items associated with the subject are stored in a separate, homogenized object-based remote database physically located at the customer's site (all data loaded prior to use), in association with the object identifier stored in the object attribute table. The object attribute tables are indexed at the remote databases for rapid searching and access by object identifier. (Column 6, lines 1-15)

Accordingly, it is an objective of the present invention to provide a distributed database computer system that overlays a homogeneous data model upon a plurality of possibly remotely located and possibly heterogeneous database systems or structures, so as to facilitate the retrieval and synchronization of information in a global fashion. (Column 6, lines 57-62)

Based on the teaching of Hoover et al., it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the Walker et al. system and method to incorporate the Hoover et al. method of data collection for the Walker et al. heterogeneous group of “on-line bank data access system”, “global customer information file” and the “front end processing and communications system” prior to evaluation, in order to facilitate the retrieval and synchronization of information in a global fashion.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asfand M. Sheikh whose telephone number is (571)272-1466. The examiner can normally be reached on 9a-5p.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ryan M. Zeender can be reached on (571)272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Asfand M. Sheikh/
Examiner, Art Unit 3627
4/10/2009

/F. Ryan Zeender/
Supervisory Patent Examiner, Art Unit 3627